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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,576	11/28/2003	Thomas Happ	543822002600	4966
25227	7590	11/17/2005		
MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD SUITE 300 MCLEAN, VA 22102			EXAMINER MCLEAN MAYO, KIMBERLY N	
			ART UNIT 2187	PAPER NUMBER

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/722,576	<b>Applicant(s)</b> HAPP ET AL.	
	<b>Examiner</b> Kimberly N. McLean-Mayo	<b>Art Unit</b> 2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2003.  
 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-15 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 28 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The enclosed detailed action is in response to the Application submitted on November 28, 2003.

### ***Oath/Declaration***

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the foreign application for patent or inventor's certificate on which priority is claimed pursuant to 37 CFR 1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application number, country, day, month and year of its filing.

The Oath received by the Office on April 19, 2004 indicates that the Applicant is claiming foreign priority.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 6 recites the limitation "the current intensity", "the duration of a programming", "the number of programming pulses" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1-3, 5-6, 8, 11-12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Tuan (USPN: 4,380,803)

Regarding claims 1, 8 and 11, Tuan discloses a process for controlling a memory component comprising sending out a signal to select one of several possible modes for the memory component, over one or several separate mode selection lines [claim 8] (Figure 1, signal lines V1 and V2) and operating [via a controller] the memory component in accordance with the specific mode selected by the signal (C 4, L 23-34).

Regarding claim 2, Tuan discloses writing data into the memory component in accordance with the specific mode selected by the signal (C 4, L 23-34; read-only mode– write once[non-erasable]; read/write- write many[erasable/volatile type]).

Regarding claim 3, Tuan discloses a soft writing mode (RAM- read/write) (C 1, L 19-24; C 6, L 30-67; C 7, L 1-9).

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Regarding claim 5, Tuan discloses a hard writing mode (ROM; write once mode) (C 1, L 25-30; C 5, L 61-68; C 6, L 1-29).

Regarding claim 6, Tuan discloses writing data into the memory component depending on the selected mode wherein the current intensity and/or the duration of a programming pulse and/or the number of programming pulses is adapted (C 5, L 61-68; C 6, L 1-29 [the voltage applied to write in the read only mode is lower than the voltage used in the read-write mode and thus so to are the corresponding current intensity]; C 6, L 30-67; C 7, L 1-9).

Regarding claim 12, Tuan discloses one of the possible modes is a soft writing mode (RAM-read/write) (C 1, L 19-24; C 6, L 30-67; C 7, L 1-9).

Regarding claim 14, Tuan discloses one of the possible modes is a hard writing mode (ROM; write once mode) (C 1, L 25-30; C 5, L 61-68; C 6, L 1-29).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuan (USPN: 4,380,803) in view of Hu (USPN: 5,768,182).

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Tuan discloses the limitations cited above in claims 2 and 11, however, Tuan does not disclose a non-volatile writing mode. Hu discloses a non-volatile writing mode (Abstract; C 2, L 58-62).

This feature taught by Hu provides flexibility and reliability by allowing the data to be retained upon a power loss. Tuan's system discloses a mode of operating wherein the data is retained upon a power loss, however, in this mode of operation, data can only be written once. Hence, one of ordinary skill in the art would have recognized this limitation in Tuan's system and would have been motivated to add a non-volatile mode of operation wherein data is retained upon a power loss and wherein the data can be rewritten for the desirable purpose of flexibility.

Depending on the design of a system, some of the data may require writing once and retention upon a power loss, wherein other data may require retention and over writing capabilities and other data may just require over writing capability.

10. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuan (USPN: 4,380,803) in view of Moore et al. (US2002/0127886)

Tuan discloses the limitations cited above in claims 1 and 11, however, Tuan does not disclose the memory component comprising PMC memory cells. Moore teaches that PMC cells contain fast ion conductors thereby providing efficiency and reliability. Hence, it would have been obvious to one of ordinary skill in the art to use PMC memory cells in the system taught by Tuan for the desirable purpose of efficiency and reliability.

11. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuan (USPN: 4,380,803).

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Regarding claims 9-10, Tuan discloses limitations cited above, however, Tuan does not disclose sending the select signal on the same data lines as the data. However, this concept is well known in the art wherein control/address and data signals are multiplexed on the same signal lines. This method reduces the overall number of signals required to transmit information, thereby reducing delays in the system due to the natural characteristics of a signal line such as impedance. Hence, it would have been obvious to one of ordinary skill in the art to incorporate such teachings in the system taught by Tuan for the desirable purpose of improved performance afforded by delay reduction.

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly N. McLean-Mayo whose telephone number is 571-272-4194. The examiner can normally be reached on Mon (10-4), Tues, Thu (10-2), Fri (10-6:30).

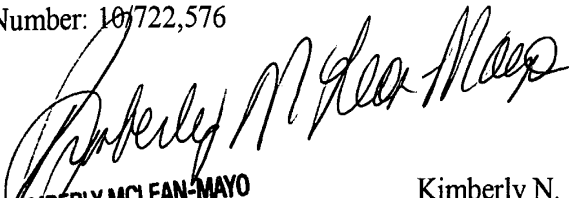
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on 571-272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**KIMBERLY MCLEAN-MAYO**  
**PRIMARY EXAMINER**

Kimberly N. McLean-Mayo  
Primary Examiner  
Art Unit 2187

KNM

November 10, 2005